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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,690	12/27/2001	Stefaan De Cnodder	Q67666	9306

7590 09/26/2006

SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

SOL, ANTHONY M

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 09/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/026,690	DE CNODDER ET AL.	
	Examiner	Art Unit	
	Anthony Sol	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Applicant's Amendment filed 7/3/2006 is acknowledged.
- The previous objection to claims 7 and 14 is withdrawn.
- Claims 1-15 have been amended.
- Claims 1-15 remain pending.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "The marking method" in line 1. There is insufficient antecedent basis for this limitation in the claim. Does the applicant mean to state – The marking determining method --?

3. Claims 1-3, 5-8, 10, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troxel (US Pat. 6,147,970) in view of Wang et al. (US Pat. 6,748,435) (hereinafter "Wang").

Regarding claims 1, 8, and 15,

Troxel discloses a marking determining method, for determining a packet marking of packets of an incoming packet-flow, in order to keep said packets in conformance with a traffic policy, said determining being based on an actual value of a traffic reservation parameter, said traffic reservation parameter being a measure of available network resources dedicated to packets of said incoming packet-flow having a pre-assigned priority, said determining further being based on said pre-assigned priority of said packets of said incoming packet flow, said traffic reservation parameter having a predetermined minimum and a maximum value, said marking method comprising:

holding a threshold value (figure 9, reference 64) for said traffic reservation parameter (figure 9, reference 66), said threshold value lying between said minimum and said maximum value of said traffic reservation parameter;

determining said packet marking of each of said packets based on said actual value of said traffic reservation parameter when said actual value of said traffic reservation parameter exceeds said threshold value for said traffic reservation parameter (column 2, lines 61-67, *the message is marked non-conforming if the token counter is below the number of tokens required for passing said message. [M]essage marked conforming is referred to as "protected against loss."*).

Troxel does not disclose metering said actual value of said traffic reservation parameter. However, Wang teaches measuring the token bucket level (claim 1, 3rd element, token level indicator). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to include in Troxel a token bucket level measurement for the purpose of determining whether to mark packet based on the available bandwidth (bucket level).

4. Regarding claims 2 and 9,

Troxel does not disclose one additional pre-assigned priority for each said packet.

Wang discloses a differentiated services code point (DSCP) by a traffic conditioning marker with one class of service called expedited forwarding (EF), which is ideal for real-time services such as IP telephony, video conferences, and other real-time applications (claimed pre-assigned priority). Chang further discloses that real-time services would be allocated only a small percentage of network capacity and would be assigned to a high-priority queue in the routers (suggests threshold)(col. 2, lines 11-61).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention was made to modify the marking determining method of Troxel so that an additional pre-assigned priority such as for EF class having a threshold value assigned to limited network capacity as disclosed by Wang. One skilled in the art would have been motivated to make the combination to balance the need for QoS assurances for real-time applications with the limited network resources allocated for them versus network resources allocated for non-real time traffic (col. 2, lines 35-39).

5. Regarding claims 3 and 10,

Troxel further discloses the reservation traffic parameter is the filling level of a token bucket (figures 9 and 10); Wang (figure 6, r bits/sec).

6. Regarding claims 5 and 12,

Wang further discloses the pre-assigned priority is a packet loss priority (column 2, lines 59-61).

7. Regarding claims 6 and 13,

Troxel further discloses the pre-assigned priority is the packet traffic category (column 2, lines 45-49).

8. Regarding claims 7 and 14,

Wang further discloses the pre-assigned priority is a type of service (column 3, lines 7-13).

9. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troxel in view of Wang, and in further view of Chang et al. (US Pat. 5,367,523) (hereinafter "Chang").

Regarding claims 4 and 11,

Troxel and Wang do not teach the reservation traffic parameter is the sending rate estimate. However, Chang discloses that the sending rate is used as the green token source rate (column 9, lines 22-27). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to have the reservation traffic parameter as the sending rate estimate for the purpose of controlling the congestion in the communication network.

Response to Arguments

10. Applicant's arguments filed 7/3/2006 have been fully considered but they are not persuasive.

- In the Remarks on page 13 of the Amendment, the Applicant contends that Troxel teaches at col. 17, lines 22-26 (cited by the Examiner), only upgrading non-conforming packets, thus, Troxel is operating in a color-aware mode, whereas the Applicant's claim 1 is operating in a color-blind mode.

- The Examiner agrees that the cited portion does discuss treating non-conforming packets (color-aware mode). However, Troxel's invention also carries out so-called color-blind mode. For example, Fig. 9 depicts a color-blind mode process, wherein high priority packets that conform to all previous flowspecs use the entire bucket 60 by "using" high priority outlet 62, while low priority packets use only the contents b1 of the token bucket as shown by outlet 64 (col. 16, lines 43-55). The same color-blind mode is depicted in Fig. 10 in the first-stage policing of a two stage policing process, wherein the first token bucket 60a-n corresponds to token bucket 60 of Fig. 9 (col. 16, lines 66-67 to col. 17, lines 1-10). Note that the first stage process determines whether the packets conform (color-blind mode) as described above and the second stage

determines whether packets should be downgraded/upgraded from/to conforming to/from non-conforming (color-aware mode; col. 17, lines 11-34). Thus, the Examiner maintains that Troxel discloses operating in a color-blind mode, as is the case with claim 1 and similarly for claims 8 and 15.

Conclusion


11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Sol whose telephone number is (571) 272-5949. The examiner can normally be reached on M-F 7:30am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

AMS

9/15/2006